

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jason Charles PELLY et al.

U.S. Serial No.: Filed Concurrently Herewith


Title of Invention: EMBEDDING DATA IN MATERIAL

745 Fifth Avenue
New York, NY 10151**EXPRESS MAIL**

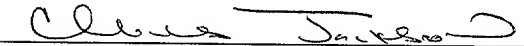
Mailing Label Number: EV001579405US

Date of Deposit: December 6, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 CFR 1.10 on the date indicated above and is addressed to the U.S. Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202



(Typed or printed name of person mailing paper or fee)



(Signature of person mailing paper or fee)

PRELIMINARY AMENDMENT

U.S. Patent and Trademark Office
Box Patent Application
P.O. Box 2327, Arlington, VA 22202

Sir:

Before the issuance of the first Office Action, please amend the above-identified application as follows:

IN THE CLAIMS:

Amend claims 43, 59, 60, 61 and 62 to read as follows:

43. (Amended) A method of embedding data in material, comprising the steps of:
- producing transform coefficients C_i of the material;
 - comparing the magnitudes of the coefficients with a threshold value T ; and
 - producing, from the coefficients C_i and the said data, modified coefficient

values C_i' which are modified by respective information symbols of a pseudo random symbol sequence modulated by the said data to be embedded;

wherein the said step of producing modified coefficient values does not use coefficients of magnitude greater than the said threshold T and does not use the corresponding information symbols; and detecting the data by

receiving transform coefficients of the material;

comparing the magnitudes of the received coefficients with a threshold T_{clip} ;

clipping, to a magnitude T_{clip} , the magnitude of coefficients of magnitude greater than the said threshold T_{clip} ; and

correlating the clipped and unclipped coefficients with a pseudo random symbol sequence to detect data embedded in the material.

59. (Amended) A system including embedding apparatus, comprising :

a transformer for producing transform coefficients C_i of the material,

a comparator for comparing the magnitudes of the coefficients with a threshold value T ,

and

a combiner for producing, from the coefficients C_i and the said data, modified coefficient values C_i' which are modified by respective information symbols of a pseudo random symbol sequence modulated by the said data to be embedded, wherein the combiner does not use coefficients of magnitude greater than the said threshold T and does not use the corresponding information symbols; and detecting apparatus comprising:

an input for receiving transform coefficients of the material;

a comparator for comparing the magnitudes of the received coefficients with a threshold T ; and

"Express Mail" mailing label number EV001579405US

Date of Deposit December 6, 2001

I hereby certify that this paper or fee, and a patent application and accompanying papers, are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and are addressed to the U.S. Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202.

Charles Jackson
(Typed or printed name of person mailing paper or fee)

Charles Jackson
(Signature of person mailing paper or fee)

a correlator for correlating the said coefficients with respective symbols of a pseudo random symbol sequence to detect the said data, wherein the correlation does not use coefficients of magnitude greater than the said threshold T and the corresponding symbols of the pseudo random symbol sequence.

60. (Amended) A method according to claim 32, wherein the said data comprises a UMID.
61. (Amended) A method according to claim 32, wherein the said material comprises video material
62. (Amended) A method according to claim 32, wherein the said material comprises audio material.

REMARKS

The claims have been amended to eliminate multiple dependencies. The filing fee is based upon this Preliminary Amendment. Attached hereto is a marked version of the changes made to the claims 43, 59, 60, 61 and 62. The attached pages are captioned **“Version with markings to show changes made.”**

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP
Attorneys for Applicant

By:



William S. Frommer
Reg. No. 25,506
Tel. (212) 588-0800

VERSION WITH MARKINGS TO SHOW CHANGES MADE**In the claims:**

43. (Amended) A method ~~of comprising~~ embedding data in material, comprising the steps of:
producing transform coefficients C_i of the material;
comparing the magnitudes of the coefficients with a threshold value T ; and
producing, from the coefficients C_i and the said data, modified coefficient
values C_i' which are modified by respective information symbols of a pseudo random symbol
sequence modulated by the said data to be embedded;

wherein the said step of producing modified coefficient values does not use coefficients of
magnitude greater than the said threshold T and does not use the corresponding information
symbols; and detecting the data by

receiving transform coefficients of the material;
comparing the magnitudes of the received coefficients with a threshold T_{clip} ;
clipping, to a magnitude T_{clip} , the magnitude of coefficients of magnitude greater than
the said threshold T_{clip} ; and

correlating the clipped and unclipped coefficients with a pseudo random symbol
sequence to detect data embedded in the material ~~according to claim 41 or 42.~~

59. (Amended) A system ~~including comprising~~ embedding apparatus, comprising:
_____ a transformer for producing transform coefficients C_i of the material,
_____ a comparator for comparing the magnitudes of the coefficients with a threshold value T ,
and
_____ a combiner for producing, from the coefficients C_i and the said data, modified coefficient
values C_i' which are modified by respective information symbols of a pseudo random symbol

sequence modulated by the said data to be embedded, wherein the combiner does not use coefficients of magnitude greater than the said threshold T and does not use the corresponding information symbols; and detecting apparatus according to claims 54 comprising:

an input for receiving transform coefficients of the material;

a comparator for comparing the magnitudes of the received coefficients with a threshold

T; and

a correlator for correlating the said coefficients with respective symbols of a pseudo random symbol sequence to detect the said data, wherein the correlation does not use coefficients of magnitude greater than the said threshold T and the corresponding symbols of the pseudo random symbol sequence.

60. (Amended) A method ~~or apparatus~~ according to claim 32, wherein the said data comprises a UMID.

61. (Amended) A method ~~or apparatus~~ according to claim 32, wherein the said material comprises video material

62. (Amended) A method ~~or apparatus~~ according to claim 32, wherein the said material comprises audio material.